



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

# Material Safety data Sheet

## it4ip polycarbonate track etched membrane

**MSDS/SDS Number: MSDS001**

Issue Date: March, 25<sup>th</sup>, 2008  
Latest Revision Date: July 8<sup>th</sup>, 2010  
Revision: C

### SECTION 1

#### PRODUCT AND COMPANY INFORMATION

Trade Name: it4ip polycarbonate track etched membrane filter  
Chemical Name: Porous polycarbonate track-etched membrane.  
Other trade names and synonyms: Crystal Clear Track Etched Membrane, ipPORE, ipBLACK, ipCellCulture  
Manufacturer/Distributor:  
it4ip s.a.  
Activalis, ZIC, rue Jules Bordet  
7180 Seneffe  
Belgium  
32-(0)64 37 10 01  
[contact@it4ip.be](mailto:contact@it4ip.be)

### SECTION 2

#### COMPOSITION / INFORMATION ON INGREDIENTS

Component	EINECS or ELINCS No.	CAS No.	Content (weight percent)	Symbol letters*	R Phrases**
Bisphenol-A polycarbonate resin (PC)	unlisted	24936-68-3	>98	none	non



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

## SECTION 3

### HAZARD IDENTIFICATION / EMERGENCY OVERVIEW

Appearance:	White or black porous solid - film
Classification:	This product is not classified as dangerous according to Directive 1999/45/EC.
Adverse human health effects:	Repeated or prolonged skin contact may cause slight skin irritation.
Contact with Eyes:	Although unlikely to occur, eye contact may cause irritation.
Ingestion:	Although unlikely to occur, ingestion may cause digestive tract irritation.
Inhalation (Short Term):	This product is not considered to represent an inhalation hazard.
Inhalation (Long Term):	This product is not considered to represent an inhalation hazard.
Skin Contact:	Repeated or prolonged contact may cause dry or irritated skin
Target Organs:	None determined.
Medical conditions aggravated by exposure:	None Found.
Adverse environmental effects:	The polymeric components of this product are not expected to biodegrade significantly in contact with soils or natural waters.
Adverse physiochemical effects:	The polymeric components of this product are not expected to biodegrade significantly in contact with soils or natural waters.

## SECTION 4

### FIRST AID MEASURES

Contact with Eyes:	Eye injury could result from physical impact. Get medical attention immediately.
Ingestion:	This material is not expected to present an ingestion hazard in the form and quantities present in a workplace setting. However, if



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

Inhalation: ingestion occurs, seek medical attention  
Inhalation is not considered a likely route of exposure.

Skin Contact: Wash exposed skin thoroughly with soap or mild detergent and water. If irritation persists or develops, seek medical attention

## SECTION 5

### FIRE FIGHTING MEASURES

Flash Ignition Temperature: 226°C

Autoignition Temperature (ASTM D1929): 630°C (estimated)

Suitable extinguishing media: Water-spray, water-fog, water-stream, CO<sub>2</sub>, dry-chemical, foam, earth or sand, and remove from source of flame.

Unsuitable extinguishing media: None found

Special protective equipment for firefighters: As in any fire, wear a self-contained breathing apparatus in pressure-demand mode and full protective gear. During a fire, irritating and highly toxic gases and fumes may be generated by thermal decomposition and combustion.

Special exposure hazards: Under fire conditions, toxic carbon and fluorine containing compounds will be emitted.

## SECTION 6

### ACCIDENTAL RELEASE

Personal precautions: Personal precautions will be determined by the nature of the fluids being processed, if other than water..

Small spills: Collect material into suitable, covered container for disposal. Unused membranes may be disposed as ordinary trash.



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

Large spills: Collect material into suitable, covered container for disposal. Unused membranes may be disposed as ordinary trash.

Environmental precautions: The materials of construction do not pose an environmental hazard.

Clean up measures: The consolidated nature of the product allows spilled product to be manually collected and placed in a container for proper disposal.

## SECTION 7

### HANDLING AND STORAGE

Handling: Handle with care to maintain the integrity and cleanliness of the filter unit

Storage: Store membranes in cool, dry location, away from excess moisture.

## SECTION 8

### EXPOSURE CONTROL AND PERSONAL PROTECTION

Respiratory protection:	Normal Handling Conditions Typically, respirator use is not required. The nature of the fluids being processed may dictate the use of respiratory protection.	Emergency Response Conditions Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
Ventilation:	Membrane is a non-volatile solid and general ventilation is adequate. Processing which heats the material may require exhaust ventilation to keep the concentration of decomposition products below applicable exposure limits.	General ventilation is adequate for most applications.
Eye protection:	Safety glasses with side shields are adequate for normal use of this product	Safety glasses with side shields are adequate for normal use of this product
Skin protection:	Wear appropriate protective gloves to prevent skin exposure.	Wear appropriate protective gloves to prevent skin exposure.



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

## SECTION 9

### PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White or black porous solid
Odor:	Odorless
Odor Threshold:	Not available
pH:	Not applicable
Melting Point:	Not available
Boiling Point:	Not available
Flash Ignition Point:	226 °C
Explosive Properties:	None
Oxidizing Properties:	None
Vapor pressure, 20 °C:	Not available
Solubility:	Insoluble
Specific Gravity:	1.2 (Water = 1.0)
Vapor Density, 20 °C:	Not available
Viscosity, centipoise:	Not applicable
Partition coefficient (n-octanol/water):	Not applicable

## SECTION 10

### STABILITY AND REACTIVITY

Chemical Stability:	Stable at normal temperatures and pressure.
Incompatible With:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, acrid smoke and fumes
Conditions to Avoid:	Elevated temperatures (>225 °C) release flammable vapors
Hazardous Polymerization:	Has not been reported

## SECTION 11



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

## TOXICOLOGICAL INFORMATION

Inhalation:	This product does not pose an inhalation health hazard.
Ingestion:	This product does not pose an ingestion health hazard.
Skin Contact:	This product does not pose a skin health hazard.
Eye Contact:	This product does not pose an eye injury hazard.
Carcinogenicity:	Bisphenol-A polycarbonate polymers are not listed as carcinogenic by IARC, NIOSH, NTP, or OSHA
Chronic Toxicity:	No adverse health effects are expected from prolonged or repeated exposure to this product.
Toxicology Data:	Bisphenol-A polycarbonate or Poly(oxycarbonyloxy-1,4-phenylene(1-methylethylidene)-1,4-phenylene) Bisphenol-A polycarbonate RTECS#: TR1580150 LD <sub>50</sub> , oral, rat >10 gm/kg LD <sub>50</sub> , oral, mouse >10 gm/kg

## SECTION 12

### ECOLOGICAL INFORMATION

Ecotoxicity:	Bisphenol-A polycarbonate membranes are not expected to readily degrade in contact with water or the soil.
Environmental Fate:	No information found

## SECTION 13

### DISPOSAL INFORMATION

European Union:	Once exhausted, this membrane filter should be considered according to the European Waste catalogue (European commission decision of 03/05/01 modifying directives 94/3/CE and 75/442/CE) as part of the following categories: When used to filter non-dangerous substances: 20 01 39, separately collected fractions, plastics
-----------------	---



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

Other uses involving dangerous substances  
Consult the European Waste Catalogue for  
specific classifications.

United States:

Bisphenol-A polycarbonate is not a US  
Environmental Protection Agency RCRA  
Hazardous Waste. Transport and dispose of  
waste membrane in accordance with all federal,  
state and local regulations.

## SECTION 14

### TRANSPORTATION INFORMATION

Bisphenol-A polycarbonate is not currently regulated as a hazardous  
material or dangerous goods by USDOT, ICAO/IATA, ADR or IMO  
regulations.

## SECTION 15

### REGULATORY INFORMATION

Australia	Hazchem Code:Not available
California	Poisons Schedule Number:Not available No Significant Risk Level:No Significant Risk Level: None of the chemicals in this product are listed
Canada WHMIS:	This product has a WHMIS classification of Not Controlled.
European Union Symbols:	Not available Category of danger:Not available Risk phrases:Not available Safety phrases:Not available OECD/High Production Volume (HPV) chemicals: Not available WEEE:Not available RoHS:Not available
Japan Poisonous and Deleterious Substances Control Law:	Not available
United Kingdom Control of Substances Hazardous to Health Regulations 2002	



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

(COSHH) Rating: Not available

United States Toxic Substances  
Control Act (TSCA):

Bisphenol-A polycarbonate is listed on the  
TSCA Inventory or is an excluded polymer.

Occupational Exposure Limits	Component	OSHA PEL	NIOSH REL	ACGIH TLV
	Bisphenol-A polycarbonate resin (PC)	none listed	none listed	none listed

## SECTION 16

### ADDITIONAL INFORMATION

Abbreviations Used :

**ACGIH** American Conference of Government Industrial Hygienists

**ADR** European agreement on the international carriage of dangerous  
goods on road

**CAS** Chemical Abstract Service

**EINECS** European Inventory of Existing Commercial Chemical Substances

**ELINCS** European List of Notified Chemical Substances

**EPA** United States Environmental Protection Agency

**IARC** International Agency for Research in Cancer.

**IATA** International Air Transport Association

**ICAO** International Civil Aviation Organization

**IMDG** Regulations regarding the transportation of dangerous goods on ocean-going  
vessels issued by the International Maritime Organization.

**LC<sub>50</sub>** Lethal Concentration 50% is the concentration of a chemical which kills 50% of  
a sample population

**LD<sub>50</sub>** Lethal Dose 50% is the dose of a chemical which kills 50% of a sample  
population.



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

**LDLo** Lowest observed lethal dose

**MSFU** Manufacture, Formulation, Supply and Use (Section 13)

**NIOSH** National Institute of Occupational Safety and Health (US)

**NTP** National Toxicology Program (US)

**OSHA** United States Occupational Safety and Health Administration

**RID** International regulations concerning the international carriage of dangerous goods by rail.

**RTECS** Registry of Toxic Effects of Chemical Substances (US)

**WHMIS** Workplace Hazardous Materials Information System (Canada)

This safety data sheet has been prepared to comply with the requirements of European Union Directive 2001/58/EC and ANSI Z400.1-1998.

it4ip is a registered trademark of UCL (Université Catholique de Louvain, Belgicain)



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

and accurate; however, it4ip makes no warranty with respect to such information and assumes no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

# Material Safety data Sheet

## it4ip PET track etched membrane

**MSDS/SDS Number: MSDS003**

Issue Date: March, 25<sup>th</sup>, 2008  
Latest Revision Date: July 10<sup>th</sup>, 2010  
Revision: C

### SECTION 1

#### PRODUCT AND COMPANY INFORMATION

Trade Name: it4ip PET track etched membrane filter  
Chemical Name: Porous PET track-etched membrane.  
Other trade names and synonyms: Crystal Clear Track Etched Membrane, ipPORE, ipBLACK, ipCellCulture  
Manufacturer/Distributor:  
it4ip s.a.  
Activalis, ZIC, rue Jules Bordet  
7180 Seneffe  
Belgium  
32-(0)64 37 10 01  
[contact@it4ip.be](mailto:contact@it4ip.be)

### SECTION 2

#### COMPOSITION / INFORMATION ON INGREDIENTS

Component	polyethylene terephthalate film
CAS No.	25038-59-9
Content (weight percent)	>98
The following filler may be present (< 1%)	silica
Material is not known to contain toxic chemicals	



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

## SECTION 3

### HAZARD IDENTIFICATION / EMERGENCY OVERVIEW

Appearance:	White or black porous solid – film, odorless
Classification:	This product is not classified as dangerous according to Directive 1999/45/EC.
Adverse human health effects:	Repeated or prolonged skin contact may cause slight skin irritation.
Contact with Eyes:	Although unlikely to occur, eye contact may cause irritation.
Ingestion:	Although unlikely to occur, ingestion may cause digestive tract irritation.
Inhalation (Short Term):	This product is not considered to represent an inhalation hazard.
Inhalation (Long Term):	This product is not considered to represent an inhalation hazard.
Skin Contact:	Repeated or prolonged contact may cause dry or irritated skin
Target Organs:	None determined.
Medical conditions aggravated by exposure:	None Found.
Adverse environmental effects:	The polymeric components of this product are not expected to biograde significantly in contact with soils or natural waters.
Adverse physiochemical effects:	The polymeric components of this product are not expected to biograde significantly in contact with soils or natural waters.

## SECTION 4

### FIRST AID MEASURES

Contact with Eyes:	Eye injury could result from physical impact. Get medical attention immediately.
Ingestion:	This material is not expected to present an ingestion hazard in the form and quantities present in a workplace setting. However, if ingestion occurs, seek medical attention



Incubateur Actualis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

Inhalation: Inhalation is not considered a likely route of exposure.

Skin Contact: Wash exposed skin thoroughly with soap or mild detergent and water. If irritation persists or develops, seek medical attention

## SECTION 5

### FIRE FIGHTING MEASURES

Membranes can be combusted only by remaining in contact with flame

Suitable extinguishing media: Water-spray, water-fog, water-stream, CO<sub>2</sub>, dry-chemical, foam, earth or sand, and remove from source of flame.

Unsuitable extinguishing media: None found

Special protective equipment for firefighters: As in any fire, wear a self-contained breathing apparatus in pressure-demand mode and full protective gear. During a fire, irritating and highly toxic gases and fumes may be generated by thermal decomposition and combustion. Carbon dioxide, carbon monoxide, organic acids, aldehydes, alcohols are produced

During processing, film may pick up a strong static charge. Avoid discharge into dust or solvent laden air as a flash fire or explosion may result.

## SECTION 6

### ACCIDENTAL RELEASE

Personal precautions: Personal precautions will be determined by the nature of the fluids being processed, if other than water..

Small spills: Collect material into suitable, covered container for disposal. Unused membranes may be disposed as ordinary trash.



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

- Large spills: Collect material into suitable, covered container for disposal. Unused membranes may be disposed as ordinary trash.
- Environmental precautions: The materials of construction do not pose an environmental hazard.
- Clean up measures: The consolidated nature of the product allows spilled product to be manually collected and placed in a container for proper disposal.

## SECTION 7

### HANDLING AND STORAGE

- Handling: Handle with care to maintain the integrity and cleanliness of the filter unit
- Storage: Store membranes in cool, dry location, away from excess moisture. Rolls may telescope. Membrane can pick up static electricity.

## SECTION 8

### EXPOSURE CONTROL AND PERSONAL PROTECTION

Respiratory protection:	<b>Normal Handling Conditions</b> Typically, respirator use is not required. The nature of the fluids being processed may dictate the use of respiratory protection.	<b>Emergency Response Conditions</b> Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
Ventilation:	Membrane is a non-volatile solid and general ventilation is adequate. Processing which heats the material may require exhaust ventilation to keep the concentration of decomposition products below applicable exposure limits.	General ventilation is adequate for most applications.
Eye protection:	Safety glasses with side shields are adequate for normal use of this product	Safety glasses with side shields are adequate for normal use of this product
Skin protection:	Wear appropriate protective gloves to prevent skin exposure.	Wear appropriate protective gloves to prevent skin exposure.



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

## SECTION 9

### PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White or black or colourless porous solid
Odor:	Negligible
Melting Point:	+/- 260°C
Vapor pressure, 20 °C:	Negligible
Solubility:	Insoluble
Specific Gravity:	1.2 (Water = 1.0)

## SECTION 10

### STABILITY AND REACTIVITY

Chemical Stability:	Stable at normal temperatures and pressure.
Incompatible With:	Strong acids and bases may hydrolyze the membrane. Avoid contact with strong oxidizing agents.
Hazardous Decomposition Products:	Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, hydrocarbon oxidation products such as organic acids, aldehydes, alcohols, ketones and acrolein.
Hazardous Polymerization:	will not occur

## SECTION 11

### TOXICOLOGICAL INFORMATION

Inhalation:	This product does not pose an inhalation health hazard.
Ingestion:	This product does not pose an ingestion health hazard.



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

Skin Contact: This product does not pose any skin health hazard.  
Eye Contact: This product is a mild eye irritant.  
Carcinogenicity: none  
Chronic Toxicity: No adverse health effects are expected from prolonged or repeated exposure to this product.  
Toxicology Data: oral ALD > 10.000 mg/kg in rats

## SECTION 12

### ECOLOGICAL INFORMATION

Ecotoxicity: no information is available. Toxicity is expected to be low based on insolubility in water.  
Environmental Fate: No information found

## SECTION 13

### DISPOSAL INFORMATION

European Union: Once exhausted, this membrane filter should be considered according to the European Waste catalogue (European commission decision of 03/05/01 modifying directives 94/3/CE and 75/442/CE) as part of the following categories:  
When used to filter non-dangerous substances: 20 01 39, separately collected fractions, plastics  
Other uses involving dangerous substances  
Consult the European Waste Catalogue for specific classifications.  
United States: PET is not a US Environmental Protection Agency RCRA Hazardous Waste. Transport and dispose of waste membrane in accordance with all federal, state and local regulations.

## SECTION 14



Incubateur Actualis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

## **TRANSPORTATION INFORMATION**

Transportation must be in accordance with applicable federal, state, provincial and local regulations.

### **SECTION 15**

## **REGULATORY INFORMATION**

United States Toxic Substances  
Control Act (TSCA): in accordance with TSCA inventory  
requirements for commercial purposes.

### **SECTION 16**

## **ADDITIONAL INFORMATION**

Abbreviations Used :

**ACGIH** American Conference of Government Industrial Hygienists

**ADR** European agreement on the international carriage of dangerous  
goods on road

**CAS** Chemical Abstract Service

**EINECS** European Inventory of Existing Commercial Chemical Substances

**ELINCS** European List of Notified Chemical Substances

**EPA** United States Environmental Protection Agency

**IARC** International Agency for Research in Cancer.

**IATA** International Air Transport Association

**ICAO** International Civil Aviation Organization

**IMDG** Regulations regarding the transportation of dangerous goods on ocean-going  
vessels issued by the International Maritime Organization.



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

**LC<sub>50</sub>** Lethal Concentration 50% is the concentration of a chemical which kills 50% of a sample population

**LD<sub>50</sub>** Lethal Dose 50% is the dose of a chemical which kills 50% of a sample population.

**LDLo** Lowest observed lethal dose

**MSFU** Manufacture, Formulation, Supply and Use (Section 13)

**NIOSH** National Institute of Occupational Safety and Health (US)

**NTP** National Toxicology Program (US)

**OSHA** United States Occupational Safety and Health Administration

**RID** International regulations concerning the international carriage of dangerous goods by rail.

**RTECS** Registry of Toxic Effects of Chemical Substances (US)

**WHMIS** Workplace Hazardous Materials Information System (Canada)

This safety data sheet has been prepared to comply with the requirements of European Union Directive 2001/58/EC and ANSI Z400.1-1998.

it4ip is a registered trademark of UCL (Université Catholique de Louvain, Belgicain)



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

© 2008 it4ip. All rights reserved. The above information is believed to be current and accurate; however, it4ip makes no warranty with respect to such information and assumes no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

# Material Safety data Sheet

## it4ip polyimide track etched membrane

**MSDS/SDS Number: MSDS002**

Issue Date: March, 25<sup>th</sup>, 2008  
Latest Revision Date: July 10<sup>th</sup>, 2010  
Revision: B

### SECTION 1

#### PRODUCT AND COMPANY INFORMATION

Trade Name: it4ip polyimide track etched membrane filter  
Chemical Name: Porous polyimide track-etched membrane.  
Other trade names and synonyms: Crystal Clear Track Etched Membrane, ipPORE, ipBLACK, ipCellCulture  
Manufacturer/Distributor:  
it4ip s.a.  
Activalis, ZIC, rue Jules Bordet  
7180 Seneffe  
Belgium  
32-(0)64 37 10 01  
[contact@it4ip.be](mailto:contact@it4ip.be)



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

## SECTION 2

### COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS No.	Content (weight percent)
polyimide (PI)		100

Exposure limits for the following may apply:

Component	CAS No.	Content (weight percent)
Dimethyl acetamide (residual in film)	127-19-5	<1
Polyimide polymer (as nuisance dust)	25038-81-7	

## SECTION 3

### HAZARD IDENTIFICATION / EMERGENCY OVERVIEW

Appearance:	White or orange porous solid - film
Contact with Eyes:	Not a probable route of exposure for film
Ingestion:	Not a probable route of exposure for film
Inhalation (Short Term):	Not a probable route of exposure for film
Inhalation (Long Term):	Not a probable route of exposure for film
Skin Contact:	No irritation is expected from handling film.

## SECTION 4

### FIRST AID MEASURES

Contact with Eyes:	Eye injury could result from physical impact. Get medical attention immediately.
Ingestion:	Not a probable route of exposure for film
Inhalation:	Not a probable route of exposure for film



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

**Skin Contact:** Wash exposed skin thoroughly with soap or mild detergent and water. If irritation persists or develops, seek medical attention

## **SECTION 5**

### **FIRE FIGHTING MEASURES**

**Flammable properties** Not a fire or explosion hazard. The flammability of polyimide film is reported as self-extinguishing.

**Suitable extinguishing media:** Water-spray, water-fog, water-stream, CO<sub>2</sub>, dry-chemical, foam.

**Special protective equipment for fire-fighters:** As in any fire, wear a self-contained breathing apparatus in pressure-demand mode and full protective gear. During a fire, irritating and highly toxic gases and fumes may be generated by thermal decomposition and combustion. Polyimide chars but does not burn in air. Polyimide film will burn in an atmosphere of 100% oxygen. The major off-gases are carbon dioxide and carbon monoxide. The processing of polyimide film can cause the generation of static charge. Precautions for static charges should also be taken when removing plastic films used as protective packaging.

## **SECTION 6**

### **ACCIDENTAL RELEASE**

**Personal precautions:** Personal precautions will be determined by the nature of the fluids being processed, if other than water..

**Small spills:** Collect material into suitable, covered container for disposal. Unused membranes may be disposed as ordinary trash.

**Large spills:** Collect material into suitable, covered container for disposal. Unused membranes may be disposed as ordinary trash.



Incubateur Actualis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

Environmental precautions: The materials of construction do not pose an environmental hazard.

Clean up measures: The consolidated nature of the product allows spilled product to be manually collected and placed in a container for proper disposal.

## SECTION 7

### HANDLING AND STORAGE

Handling: Handle with care to maintain the integrity and cleanliness of the filter unit

Storage: Store membranes in cool, dry location, away from excess moisture and flammable materials.

## SECTION 8

### EXPOSURE CONTROL AND PERSONAL PROTECTION

	Normal Handling Conditions	Emergency Response Conditions
Respiratory protection:	Typically, respirator use is not required. The nature of the fluids being processed may dictate the use of respiratory protection.	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
Ventilation:	Membrane is a non-volatile solid and general ventilation is adequate. Processing which heats the material may require exhaust ventilation to keep the concentration of decomposition products below applicable exposure limits.	General ventilation is adequate for most applications.
Eye protection:	Safety glasses with side shields are adequate for normal use of this product	Safety glasses with side shields are adequate for normal use of this product
Skin protection:	Wear appropriate protective gloves to prevent skin exposure.	Wear appropriate protective gloves to prevent skin exposure.



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

## SECTION 9

### PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White or orange porous solid
Odour:	Odourless
Odour Threshold:	Not available
pH:	Not applicable
Melting Point:	None
Boiling Point:	None
Solubility:	Insoluble
Specific Gravity:	>1.4

## SECTION 10

### STABILITY AND REACTIVITY

Chemical Stability:	Stable at normal temperatures and pressure.
Incompatible With:	None reasonably foreseeable
Hazardous Decomposition Products:	At temperature above 400°C, the major off-gases are carbon monoxide and carbon dioxide.

## SECTION 11

### TOXICOLOGICAL INFORMATION

Inhalation:	This product does not pose an inhalation health hazard.
Ingestion:	This product does not pose an ingestion health hazard.
Skin Contact:	This product does not pose a skin health hazard.
Eye Contact:	This product does not pose an eye injury hazard.

## SECTION 12

### ECOLOGICAL INFORMATION

Polyimide is insoluble



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

## SECTION 13

### DISPOSAL INFORMATION

Waste disposal : landfill or incinerate in compliance with federal, state and local regulations.

## SECTION 14

### TRANSPORTATION INFORMATION

Polyimide is not currently regulated as a hazardous material or dangerous goods by USDOT, ICAO/IATA, ADR or IMO regulations.

## SECTION 15

### REGULATORY INFORMATION

Australia	Hazchem Code:Not available
California	Poisons Schedule Number:Not available No Significant Risk Level:No Significant Risk Level: None of the chemicals in this product are listed
Canada WHMIS:	This product has a WHMIS classification of Not Controlled.
European Union Symbols:	Not available Category of danger:Not available Risk phrases:Not available Safety phrases:Not available OECD/High Production Volume (HPV) chemicals: Not available WEEE:Not available RoHS:Not available
Japan Poisonous and Deleterious Substances Control Law:	Not available
United Kingdom Control of Substances Hazardous to Health Regulations 2002 (COSHH) Rating:	Not available



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

## **SECTION 16**

### **ADDITIONAL INFORMATION**

Abbreviations Used :

**ACGIH** American Conference of Government Industrial Hygienists

**ADR** European agreement on the international carriage of dangerous goods on road

**CAS** Chemical Abstract Service

**EINECS** European Inventory of Existing Commercial Chemical Substances

**ELINCS** European List of Notified Chemical Substances

**EPA** United States Environmental Protection Agency

**IARC** International Agency for Research in Cancer.

**IATA** International Air Transport Association

**ICAO** International Civil Aviation Organization

**IMDG** Regulations regarding the transportation of dangerous goods on ocean-going vessels issued by the International Maritime Organization.

**LC<sub>50</sub>** Lethal Concentration 50% is the concentration of a chemical which kills 50% of a sample population

**LD<sub>50</sub>** Lethal Dose 50% is the dose of a chemical which kills 50% of a sample population.

**LDLo** Lowest observed lethal dose

**MSFU** Manufacture, Formulation, Supply and Use (Section 13)

**NIOSH** National Institute of Occupational Safety and Health (US)

**NTP** National Toxicology Program (US)



Incubateur Activalis  
Zone Industrielle C  
Rue Jules Bordet  
7180 Seneffe  
Belgium

**OSHA** United States Occupational Safety and Health Administration

**RID** International regulations concerning the international carriage of dangerous goods by rail.

**RTECS** Registry of Toxic Effects of Chemical Substances (US)

**WHMIS** Workplace Hazardous Materials Information System (Canada)

This safety data sheet has been prepared to comply with the requirements of European Union Directive 2001/58/EC and ANSI Z400.1-1998.

it4ip is a registered trademark of UCL (Université Catholique de Louvain, Belgicain)

© 2008 it4ip. All rights reserved. The above information is believed to be current and accurate; however, it4ip makes no warranty with respect to such information and assumes no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.